

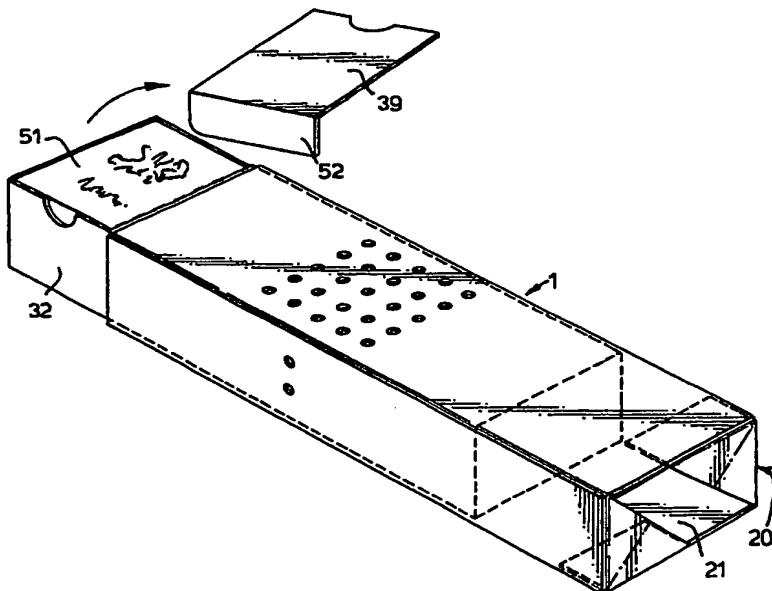
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(54) Title: CARTON FOR SMOKING ARTICLES



## (57) Abstract

A carton (1) for containing a plurality of packs (51) of smoking articles has a shell and slide construction. One end (20) of the shell is partially open to allow the user to push the lidded slide, containing packs of smoking articles, to an open position. This is defined by a hooking engagement between shell and slide to expose just a little more of a lid of the slide than a detachable portion (39), which is detached by the user to expose only one pack (51) at a time for extraction from the carton.

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**CARTON FOR SMOKING ARTICLES**

This invention relates to cartons for smoking articles.

For convenience, smoking articles such as cigarettes, cigars, cheroots or cigarillos will be referred to hereafter as cigarettes.

In this specification the word carton is used to signify a container for more than one pack of cigarettes, each pack being a container of a given charge of cigarettes, usually twenty in each pack.

The purpose of the carton is to allow the cigarettes to be distributed, sold and taken home in a compact and readily handleable way. But the carton must also allow access to the packs which are contained, preferably while retaining in a convenient way all of the packs except the one or more which the user wants to remove.

It is an object of the present invention to provide a carton for smoking articles which resembles a "shell and slide" pack - that is to say it has an outer sleeve known as the shell which surrounds an inner container known as the slide which can move longitudinally relative to the shell.

In the invention, a carton has a shell surrounding a slide for containing a plurality of packs of cigarettes and has a stop means to delimit relative

sliding movement of the slide and shell such that in a  
fully open position of the slide there is exposed  
beyond one end of the shell only a length of the slide  
corresponding to the distance needed for access to one  
5 pack at a time.

Preferably the slide of the carton is a  
parallelopipedon with a hinged lid forming one major  
face normally enclosing the packs, but the portion of  
the lid exposed by the slide in its open position being  
10 severable from the remainder of the lid and removable  
by the user to allow permanent access to a pack in the  
exposed part of the slide when the slide is in that  
open position. That portion of the slide will  
preferably have an access opening such as a thumb hole  
15 in its floor so as to allow the exposed pack to be  
pushed upwardly out of the drawer formed by the open  
slide once the lid has been removed.

Delimitation of the open position of the slide  
relative to the shell is preferably assured by a  
20 backwardly directed tab on the slide engaging with an  
oppositely directed tab on the shell, the tab and  
tongue interengaging in a hook-like fashion to define  
the open position. The material of the shell and slide  
wall normally will be conventional card material.

25 The shell may be constructed in such a way as  
to have one end open (through which the slide may be

moved towards the delimited open position) and the other having only a partial end wall so as to allow the user to press the opposite end of the slide towards its open position. That end may be formed by triangular  
5 foldable gussets extending between adjacent walls of the partially closed end of the shell, being foldable in a line from the angle between the adjacent walls such that the shell in the absence of the slide may be folded flat in its assembled condition.

10 The shell of the carton may have an array of apertures in it and the surface of the slide underlying the apertures be provided with patterns, indicia or the like so that in one or more relative positions of the slide and shell patterns, messages, colour arrangements  
15 or the like may be visible through the apertures.

A particular embodiment of the invention will be described with reference to the accompanying drawings wherein:

Figure 1 is a view of a blank for the carton  
20 shell;

Figure 2 is a view of a blank for the carton slide;

Figure 3 shows the shell and slide assembled with the slide in the delimited open position; and

25 Figure 4 shows how part of the lid of the slide may be removed to expose a pack.

A blank for the carton shell 1 seen in Figure 1 has two main panels 2,3, joined through hinge lines to a common side wall 4 and respectively to side flaps 5,6.

5 At one longitudinal edge of the major panel 2 is an end tab 7 joined to it through fold line 8. The end tab 7 has height b.

10 Of course, a tab such as 7 may be provided at one end of either or each of the major panels 2,3 if desired.

15 At the opposite end of side wall 4 and side flap 6 triangular gusset-forming parts 11,12 are joined through fold lines 9,10. The gusset-forming parts continue through fold lines 13,14 to securing tabs 15,16.

The triangular gusset-forming parts 11,12 have a further fold line 17,18 bisecting the triangle.

20 To make up the shell 1, side flap 5 is glued over side flap 6, the respective securing tabs 15,16 are secured to the inner faces of respective major panels 2 and 3 with the result that there is formed a parallelopipedon as seen in Figure 3 with one end open (tab 7 being folded back through 180° under the major panel 2) and with the other end, generally indicated at 25 20 in Figure 3 being partially open, with a gap 21 in the shape of a sleeved parallelogram between the

gusset-forming parts 11 and 12 allowing a user to insert fingers or a pusher to cooperate with a slide (to be described) contained in the shell.

On major panels 2 and 3 of the shell there are arrays 19 of small apertures, these arrays here numbering twenty-five in a square five-by-five arrangement.

The slide for the carton is formed of a blank 29 seen in Figure 2. This has major panels 30,31, one 10 of which 31 is to form a lid of the slide and the other 30 is to form a floor.

The panels 30,31 are joined through fold lines by a common side wall 32 and floor 30 has second side wall 33 attached to its fold line. Lid panel 31 has a 15 minor tuck-in flap 34 attached through a fold line.

The tuck-in flap 34 has a cut line 35 through it which continues into a line of perforation 36 across the whole width of the major panel 31 to the fold line which joins it to side wall 32 and then continues along 20 that fold line in a line of perforation 37. A detachable lid portion 39 is defined by the cut 35, the lines of perforation 36, 37 and an end of the panel 31.

The line 37 is interrupted by a finger hole 38 partly in the lid portion 39 and partly in the side 25 wall 32.

In the floor 30 a tab 40 is defined by a U-

shaped cut 41 and is joined to the remainder of the floor through fold 42. Also in the floor 30 is a thumb hole 43.

At the ends of the floor 30 are end walls 44 and 45 which can be erected relative to the floor and held upright by securing to tabs 46, 47, 48, 49 joined by fold lines to the side walls 32, 33.

A cut-out 50 allows access of the finger of the user to the minor portion 52 of the tuck-in flap 34 which is defined by the cut line 35.

The width of the portion 39, 52 of the lid and tuck-in flap is equal to or just superior to the width of a pack of cigarettes which is to be received in the slide.

The distance a between a projection of the line of perforation 36 and of the fold line 42 of the tab 40 is just slightly greater than the height b in the longitudinal direction of the tab 7 of the shell 1.

The slide is assembled into a lidded box, either around a preassembled plurality of (for example ten) packs or by having that plurality of packs loaded into it once assembled, the tab 40 is bent back through 180° around the fold line 42, the lid 31 is closed and the tuck-in flap 34 inserted between the now upright side wall 33 and the loaded packs.

The charged slide is inserted into the open end

of the shell with the end wall 45 leading and with the tab 7 on the shell also turned back through 180°, the slide being oriented in the shell in such a way that the tab 40 and tab 7 are both on the same face. When 5 the leading end 45 of the slide comes fully home against the partial end wall 20 of the shell, the free end of the bent back tab 40 has passed the free end of the flap 7. Both the tabs 7 and 40 will tend to spring back from their 180° bend, so far as is allowed by the 10 closeness of fit between the panels of the slide and the shell.

If now the user wishes to gain access to a pack in the carton he discards any overwrapping and presses on the end wall 45 through the access hole 21 in the 15 partial end wall 20 until an opened position is reached which is delimited by hooking interengagement of the tabs 40 and 7. Because of the relationship between the positions of the fold line 42, the line of perforation 46 and the height of the tab 7 this delimited position 20 is reached at a time when the line of perforation 36 is just free of the open end of the slide, as seen in Figure 3. In other embodiments the delimited position may be defined by the height of the tab 40 then 25 engaging the fold line of the tab 7, or by the tabs abutting edge to edge.

To gain access to the pack, the user using the

finger hole 38 and perhaps the cut-out 50 tears away the detachable portion 39 of the lid and discards it (Figure 4), exposing one face of only one pack 51 of the plurality of packs contained in the slide.

5           The user can remove this pack from the container either using the remaining part of the finger hole 38 in the side wall 32 or more preferably using the thumb hole 43 in the floor 30 of the slide so that the pack can be pressed upwardly.

10           Normally, as in this case, the depth of the slide is such as to equal the depth of two packs. Once pack 51 has been removed and used, access to the pack which was below it is readily available by reopening the slide to the delimited open position and pressing 15 upward on what was the lower of the packs through the thumb hole 43.

Once both those packs have been removed further 20 packs can be shaken down to become available at the access opening, of the width of one pack only, which remains available when the slide is in the opened delimited position. Normally, of course, the internal longitudinal dimension of the slide is an exact multiple of the external lateral dimension of packs assembled in it so that they are tightly packed when 25 the carton is full.

One or more of the major faces 30,31 of the

slide may have indicia, colours, or other material which presents a particular pattern or information or indicia when viewed through the arrays 19 of apertures in the faces 2 and 3. The patterns or information displayed may vary according to the relative positions of the shell and slide, for example showing one pattern or one set of indicia when the slide is closed and another when it is opened.

The structure of the gussets 11,12 and in particular the provision of hinge lines 17 and 18 allows the shell to be folded flat, e.g. for despatch, but of course only when the slide is not within it.

If it is not desired that the shell be collapsible, a non-foldable end wall may be provided for it, but the end wall should have an aperture for allowing the user to push the slide with a finger or thumb.

## Claims

1. A carton for containing a plurality of packs (51) of predetermined size which contain smoking

5 articles, the carton being of the shell and slide type characterized in that stop means (7, 40) are provided for determining an open position of the slide (29) in relation to the shell (1), the slide in that position projecting from one end of the shell by an amount

10 corresponding to a dimension of one said pack.

2. A carton according to claim 1 wherein the slide has a lid (31) with a detachable portion (39), the detachable portion corresponding to the amount of projection of the slide (29) from the one end of the shell (1) in the open position.

3. A carton according to claim 2 the lid (31) is hinged to the body of the slide at one edge and includes a tuck-in flap (34) at an opposite edge, the detachable portion (39) being defined by cuts and/or lines of perforation (35, 36, 37) in the tuck-in flap, a main panel of the lid and in the hinge line.

25 4. A carton according to claim 3 wherein there is a finger-hole (38) straddling the hinge line (37) of the

detachable portion.

5. A carton according to any one of previous claims wherein the stop means include oppositely directed tabs (7, 40) on the shell and the slide respectively, engagement of the tabs with each other defining the open position of the slide.

10 6. A carton according to any one of previous claims wherein an end (20) of the shell opposite to the one end is partially open.

15 7. A carton according to claim 6 wherein the partial opening is provided by a gap (21) between gussets (11, 12) linking adjacent faces (2, 4; 6, 3) of the shell.

20 8. A carton according to claim 7 wherein the gussets (11, 12) each include a fold line (17, 18) to allow sideways collapse of the shell in the absence of the slide.

25 9. A carton according any one of previous claims wherein a face (2) of the shell has a plurality of apertures (19) and the face of the slide underlying the said face (2) of the shell has colouring or indicia

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visible through the apertures.

10. A carton according to claim 9 wherein the colouring or indicia visible through the apertures  
5 differ according to the relative positions of the shell and slide.

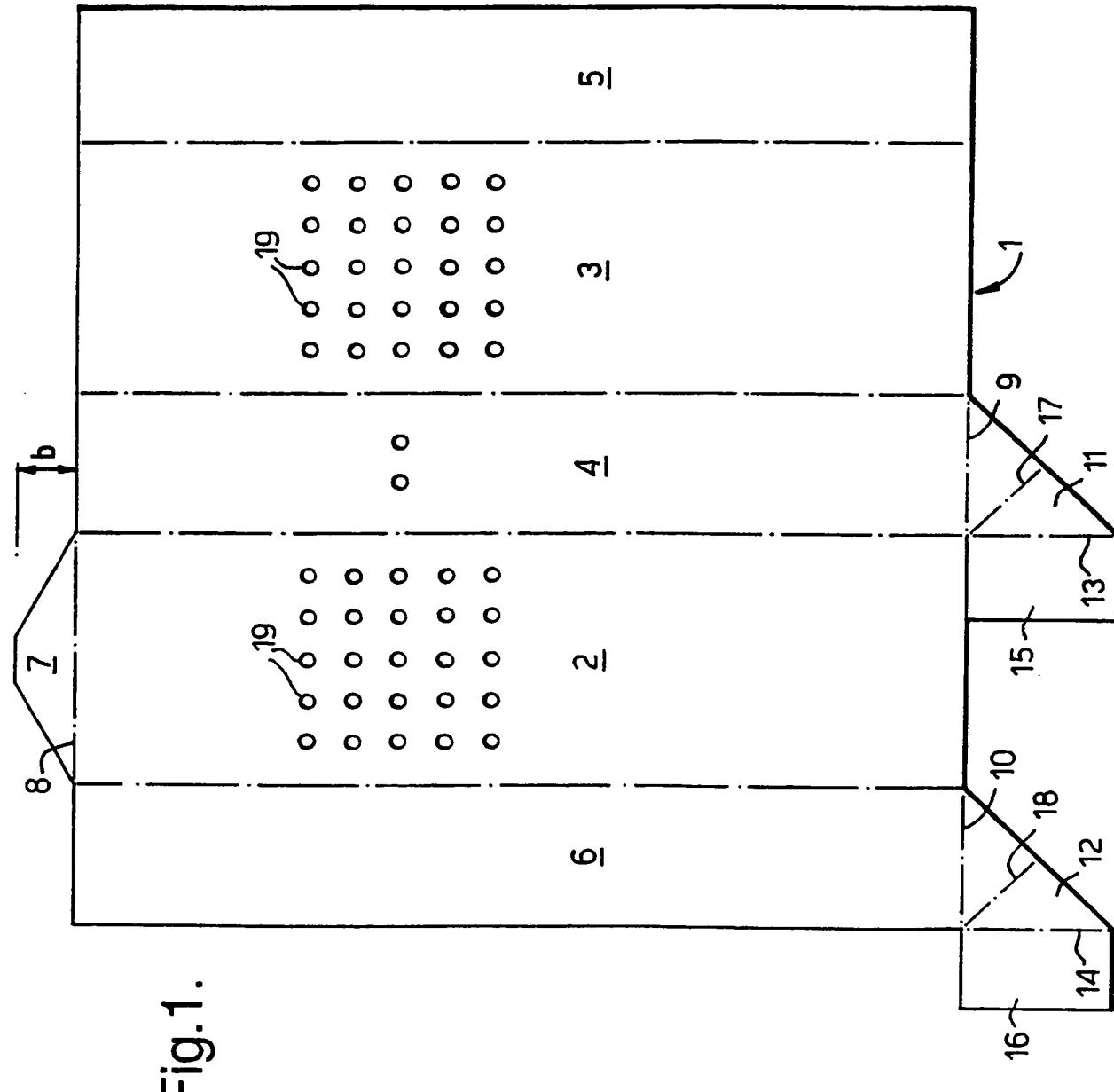


Fig.1.

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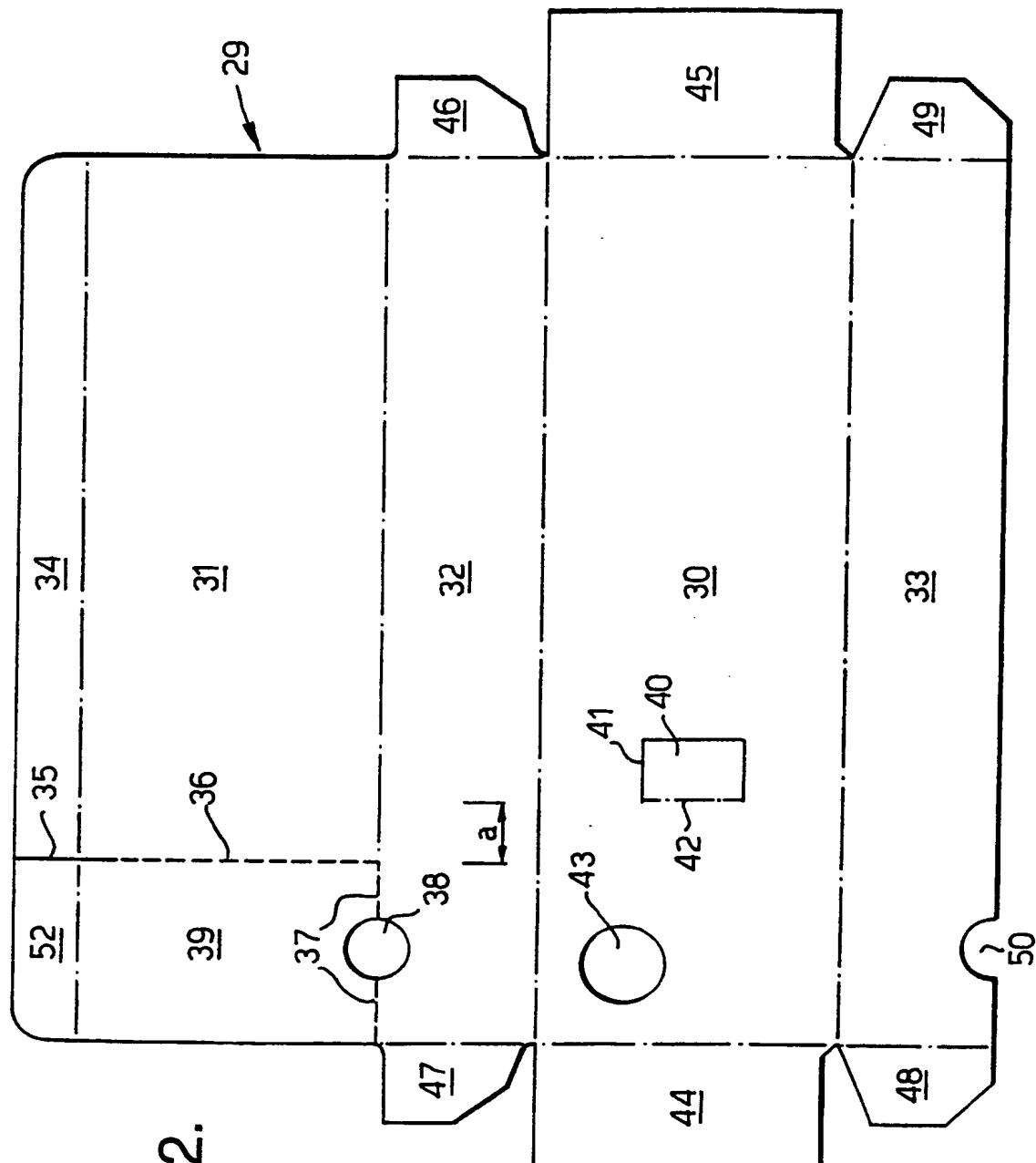


Fig.2.

Fig.3.

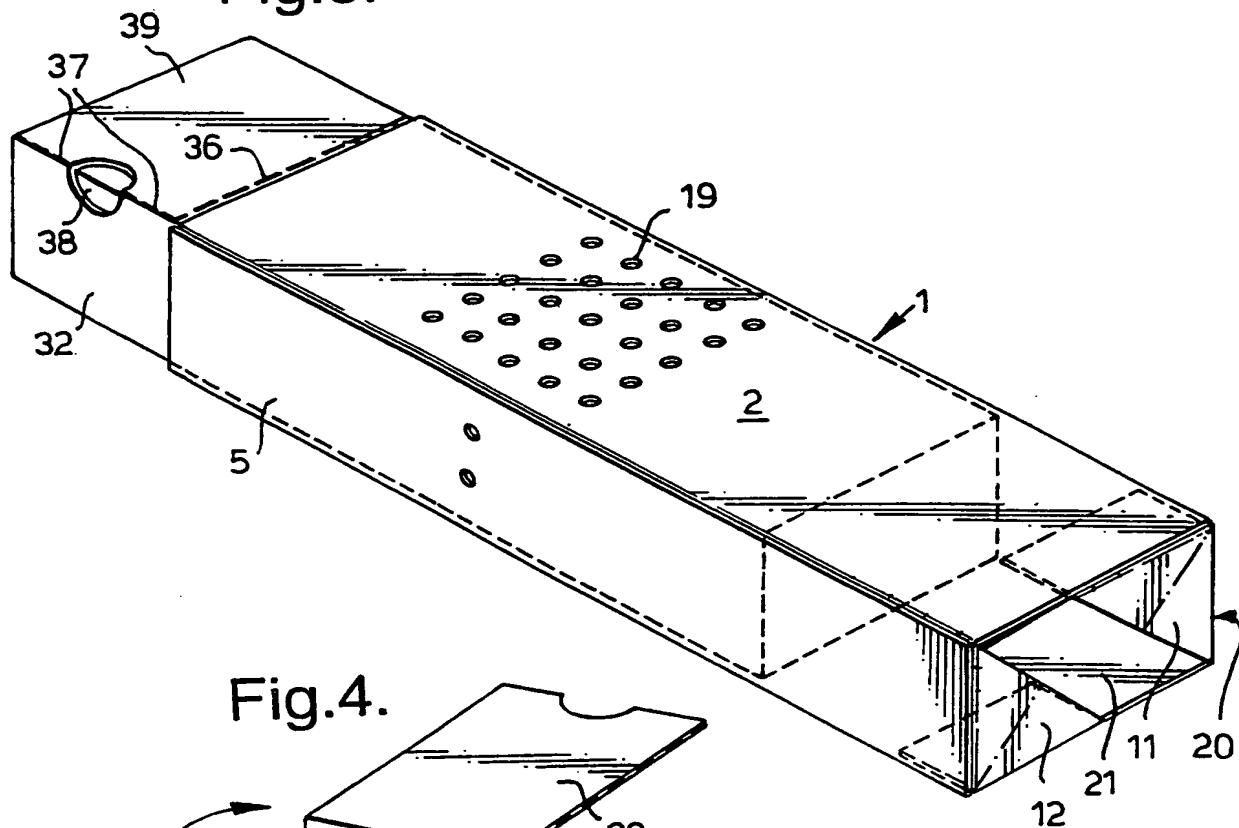
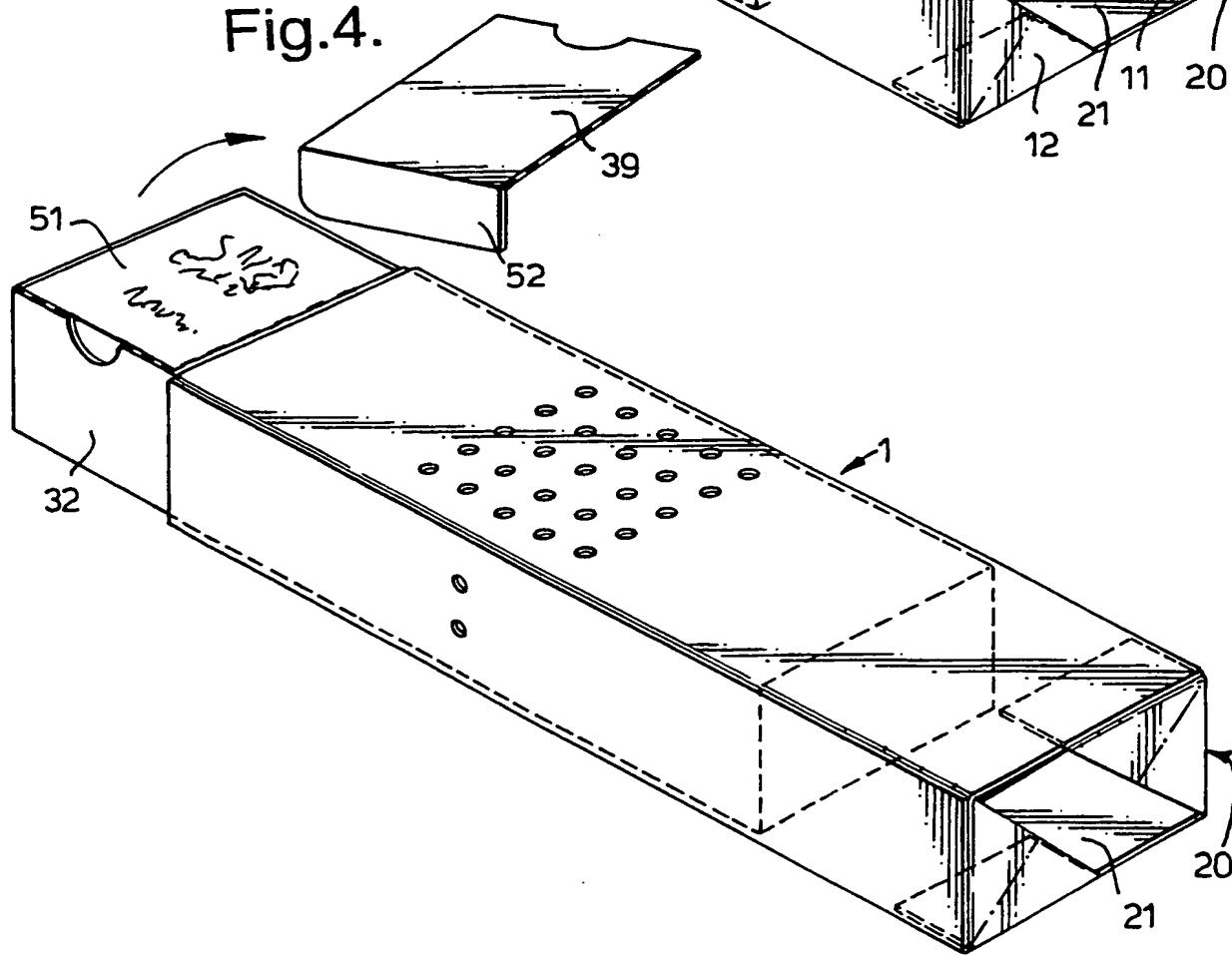


Fig.4.



## INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 99/02756

**A. CLASSIFICATION OF SUBJECT MATTER**  
**IPC 7 B65D85/10 B65D5/38**

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

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**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 080 227 A (FOCKE) 14 January 1992 (1992-01-14) the whole document	1,2,5-7
A	FR 2 499 947 A (REYNOLDS TOBACCO) 20 August 1982 (1982-08-20) the whole document	1,2,5-7
A	EP 0 059 915 A (EFKA-WERKE FRITZ KIEHN) 15 September 1982 (1982-09-15) abstract; figures	1
A	US 2 875 938 A (BRAMHILL) 3 March 1959 (1959-03-03) figures	1,2
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## INTERNATIONAL SEARCH REPORT

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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